



**STÖBER**

# Axis switch **POSISwitch® AX 5000**

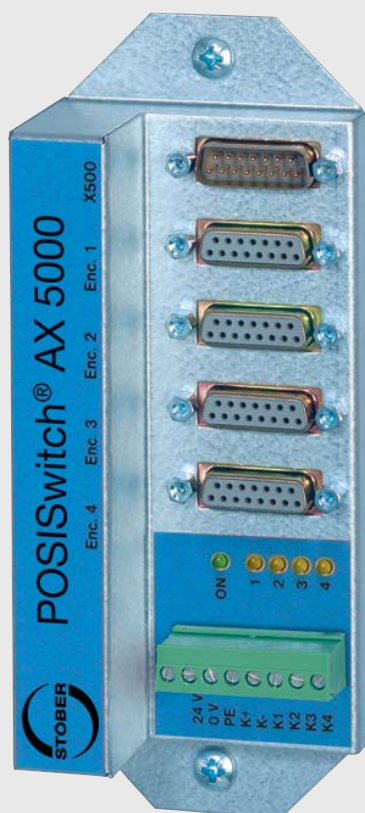
Operating Instructions

**POSIDRIVE® MDS 5000**  
**POSIDYN® SDS 5000**

**COMMISSIONING**

**CONNECTION**

**MOUNTING**



**V 5.6**

**05/2011**

**EN**

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POSISwitch® AX 5000

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# Notes on Safety

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## 1 Notes on Safety

When in operation, inverters from STÖBER ANTRIEBSTECHNIK GmbH + Co. KG may have energized or rotating parts depending on their protection rating. Surfaces may heat up. For these reasons, comply with the following:

- The safety notes listed in the following sections and points
- The technical rules and regulations

In addition, always read the mounting instructions and the short commissioning instructions.

STÖBER ANTRIEBSTECHNIK GmbH + Co. KG accepts no liability for damages caused by non-adherence to the instructions or applicable regulations. Subject to technical changes to improve the devices without prior notice.

This documentation is purely a product description. It does not represent promised properties in the sense of warranty law.

### **Component part of the product**

The technical documentation is a component part of a product.

- Since the technical documentation contains important information, always keep it handy in the vicinity of the device until the machine is disposed of.
- If the product is sold, disposed of, or rented out, always include the technical documentation with the product.

# Notes on Safety

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## Operation in accordance with its intended use

In the sense of DIN EN 50178 (previously VDE 0160), the POSIDRIVE® FDS 5000 and MDS 5000 and the POSIDYN® SDS 5000 model series represent the electrical equipment of power electronics for the control of power flow in high-voltage current systems. They are designed exclusively to power:

- Servo motors (MDS 5000, SDS 5000)
- Asynchronous motors (FDS 5000, MDS 5000 and SDS 5000)

Operation for purposes other than the intended use include the connection of other electrical loads!

Before the manufacturer is allowed to put a machine on the market, he must have a danger analysis prepared as per machine guideline 98/37/EG. This analysis establishes the dangers connected with the use of the machine. The danger analysis is a multi-stage, iterative process. Since this documentation cannot begin to provide sufficient insight into the machine guidelines, please carefully study the latest standards and legal situation yourself. After the drive controller has been installed in machines, it cannot be commissioned until it has been determined that the machine complies with the regulations of EG guideline 98/37/EG.

## Ambient conditions

Model series POSIDRIVE® FDS 5000 and MDS 5000 and POSIDYN® SDS 5000 are products of the restricted sales class as described in IEC 61800-3. This product may cause high-frequency interference in residential zones and the user may be asked to take suitable measures.

# Notes on Safety

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The inverters are not designed for use in public low-voltage networks which power residential areas. High-frequency interference must be expected when the inverters are used in such a network.

The inverters are only intended for use in TN networks.

The inverters are only designed for use on supply current networks which can deliver at the most a maximum of symmetrical rated short circuit current at 480 Volts as per the following table:

Device family	Size	Max. symmetrical rated short circuit current
FDS 5000, MDS 5000, SDS 5000	BG 0 and BG 1	5000 A
MDS 5000 SDS 5000	BG 2	5000 A
	BG 3	10000 A

Install the inverter in a switching cabinet in which the permissible maximum surrounding air temperature is not exceeded (see mounting instructions).

The following applications are prohibited:

- Use in potentially explosive areas
- Use in environments with harmful substances as per EN 60721 (e.g., oils, acids, gases, fumes, powders, irradiation)
- Use with mechanical vibration and impact stresses which exceed the information in the technical data of the mounting instructions

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Implementation of the following applications is only permitted when STÖBER ANTRIEBSTECHNIK GmbH + Co. KG has been contacted first for permission:

- Use in non-stationary applications

## Qualified personnel

Since the drive controllers of the model series POSIDRIVE® FDS 5000, POSIDRIVE® MDS 5000 and POSIDYN® SDS 5000 may harbor residual risks, all configuration, transportation, installation and commissioning tasks including operation and disposal may only be performed by trained personnel who are aware of the possible risks.

Personnel must have the qualifications required for the job. The following table lists examples of occupational qualifications for the jobs:

Activity	Possible occupational qualifications
Transportation and storage	Worker skilled in storage logistics or comparable training
Configuration	<ul style="list-style-type: none"><li>• Graduate engineer (electro-technology or electrical power technology)</li><li>• Technician (m/f) (electro-technology)</li></ul>
Installation and connection	Electronics technician (m/f)



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Commissioning (of a standard application)	<ul style="list-style-type: none"> <li>• Technician (m/f) (electro-technology)</li> <li>• Master electro technician (m/f)</li> </ul>
Programming	Graduate engineer (electro-technology or electrical power technology)
Operation	<ul style="list-style-type: none"> <li>• Technician (m/f) (electro-technology)</li> <li>• Master electro technician (m/f)</li> </ul>
Disposal	Electronics technician (m/f)

In addition, the valid regulations, the legal requirements, the reference books, this technical documentation and, in particular, the safety information contained therein must be carefully:

- read
- understood and
- complied with.

## Transportation and storage

Immediately upon receipt, examine the delivery for any transportation damages. Immediately inform the transportation company of any damages. If damages are found, do not commission the product.

If the device is not to be installed immediately, store it in a dry, dust-free room. Please see the mounting instructions for how to commission an inverter after it has been in storage for a year or longer.

# Notes on Safety

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## Installation and connection

Installation and connection work are only permitted after the device has been isolated from the power!

The accessory installation instructions allow the following actions during the installation of accessories:

- The housing of the MDS 5000, SDS 5000 and FDS 5000 in the upper slot can be opened.
- The housing of the MDS 5000 and SDS 5000 in the bottom slot can be opened.

Opening the housing in another place or for other purposes is not permitted.

Use only copper lines. For the line cross sections to be used, see table 310-16 of the NEC standard for 60 °C or 75 °C.

Protect the device from falling parts (pieces of wire, leads, metal parts, and so on) during installation or other tasks in the switching cabinet. Parts with conductive properties inside the inverter can cause short circuits or device failure.

The motor must have an integrated temperature monitor with basic isolation in accordance with EN 61800-5-1 or external motor overload protection must be used.

The permissible protection class is protective ground. Operation is not permitted unless the protective conductor is connected in accordance with the regulations.

Comply with the applicable instructions for installation and commissioning of motor and brakes.

# Notes on Safety

POSISwitch® AX 5000

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## Commissioning, operation and service

Remove additional coverings before commissioning so that the device cannot overheat. During installation, provide the free spaces specified in the mounting instructions to prevent the inverter from overheating.

The housing of the drive controller must be closed before you turn on the supply voltage. When the supply voltage is on, dangerous voltages can be present on the connection terminals and the cables and motor terminals connected to them. Remember that the device is not necessarily de-energized after all indicators have gone off.

When network voltage is applied, the following are prohibited:

- Opening the housing
- Connecting or disconnecting the connection terminals
- Installing accessories

Proceed as shown below to perform these tasks:

1. Disable the enable (X1).
2. Turn off the supply voltage (power pack and controller power supply as well as any auxiliary voltages for encoder, brake, etc.).
3. Protect the supply voltages from being turned on again.
4. Wait 5 minutes (time the DC link capacitors need to discharge).
5. Determine isolation from the voltage.
6. Short circuit the network input and ground it.
7. Cover the adjacent, voltage-carrying parts.

# Notes on Safety

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You can then start your work on the drive controller.

Repairs may only be performed by STÖBER ANTRIEBSTECHNIK GmbH + Co. KG.

Send defective devices together with a fault description to:

STÖBER ANTRIEBSTECHNIK GmbH + Co. KG

Abteilung VS-EL

Kieselbronner Str. 12

75177 Pforzheim

GERMANY

## Disposal

Please comply with the latest national and regional regulations!

Dispose of the individual parts separately depending on their nature and currently valid regulations such as, for example:

- Electronic scrap (PCBs)
- Plastic
- Sheet metal
- Copper
- Aluminum

## Residual dangers

The connected motor can be damaged with certain settings of drive controllers.

- Longer operation against an applied motor halting brake
- Longer operation of self-cooled motors at slow speeds

Drives can reach dangerous excess speeds (e.g., setting of high output frequencies for motors and motor settings which are unsuitable for this). Secure the drive accordingly.

# Notes on Safety

POSISwitch® AX 5000

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## 1.1 Software

### Using the POSITool software

The POSITool software package can be used to select the application and adjust the parameters and signal monitoring of the 5th generation of STÖBER inverters. The functionality is specified by selecting an application and transmitting these data to an inverter.

The program is the property of STÖBER ANTRIEBSTECHNIK GmbH + Co. KG and is copyrighted. The program is licensed for the user.

The software is only provided in machine-readable form. STÖBER ANTRIEBSTECHNIK GmbH + Co. KG gives the customer a non-exclusive right to use the program (license) provided it has been legitimately obtained.

The customer is authorized to use the program for the above activities and functions and to make copies of the program, including a backup copy for support of this use, and to install same. The conditions of this license apply to each copy. The customer promises to affix the copyright notation to each copy of the program and all other property notations.

The customer is not authorized to use, copy, change or pass on/transmit the program for purposes other than those in these regulations. The customer is also not authorized to convert the program (i.e., reverse assembly, reverse compilation) or to compile it in any other way. The customer is also not authorized to issue sublicenses for the program, or to rent or lease it out.

# Notes on Safety

POSISwitch® AX 5000

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## Product maintenance

The obligation to maintain refers to the two latest program versions created by STÖBER ANTRIEBSTECHNIK GmbH + Co. KG and approved for use.

STÖBER ANTRIEBSTECHNIK GmbH + Co. KG will either correct program errors or will provide the customer with a new program version. This choice will be made by STÖBER ANTRIEBSTECHNIK GmbH + Co. KG. If, in individual cases, the error cannot be immediately corrected, STÖBER ANTRIEBSTECHNIK GmbH + Co. KG will provide an intermediate solution which may require the customer to comply with special operation regulations.

A claim to error correction only exists when the reported errors are reproducible or can be indicated with machine-generated outputs. Errors must be reported in a reconstructable form and provide information which is useful to error correction.

The obligation to correct errors ceases to exist for such programs which the customer changes or edits in any way unless the customer can prove that such action is not the cause of the reported error.

STÖBER ANTRIEBSTECHNIK GmbH + Co. KG will keep the respective valid program versions in an especially safe place (fireproof data safe, bank deposit box).

# Notes on Safety

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## 1.2 Presentation of notes on safety

### **NOTICE**

#### **Notice**

means that property damage may occur if the stated precautionary measures are not taken.

### **⚠ CAUTION**

#### **Caution**

with warning triangle means that minor injury may occur if the stated precautionary measures are not taken.

### **⚠ WARNING**

#### **Warning**

means that there may be a serious danger of death if the stated precautionary measures are not taken.

### **⚠ DANGER**

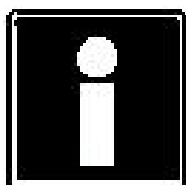
#### **Danger**

means that serious danger of death exists if the stated precautionary measures are not taken.

# Notes on Safety

POSISwitch® AX 5000

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## Information

indicates important information about the product or a highlighted portion of the documentation which requires special attention.



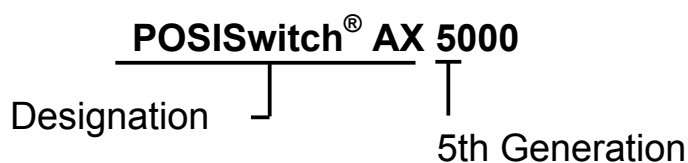
# Technical Data

POSISwitch® AX 5000

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## 2 Technical Data

### Model key



### 2.1 Electrical Data

General data		
ID no.		49578
Voltage		24 V +20% / -15% (protected against polarity reversal)
I <sub>E</sub>	without encoder and contactor	<100 mA
	with encoder, without contactor	< 1 A
Ambient temperature		0 – 45°C
Gebersystem		EnDat®

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# Technical Data

POSISwitch® AX 5000

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EnDat® Port	
Input level	TIA/EIA 422
Connection, encoder input	Sub D 15-pole (STÖBER contact allocation)
Connection, encoder output	SUB D 15-pole (STÖBER contact allocation – see connection cable in chap. 8)
Output level	TIA/EIA 422
EnDat® version	EnDat® 2.1, EnDat® 2.2
Max. clock pulse frequency	2 MHz
Switchover time	< 200 µs
Galvanic isolation EnDat® input to EnDat® input	No
Galvanic isolation EnDat® input to 24 V supply	500 V
Max. cable length between POSISwitch® and inverter	80 m <sup>1</sup>
Max. cable length between POSISwitch® and encoder	20 m <sup>1</sup>
Voltage for encoder	5.25 V
I <sub>max</sub> for encoder	200 mA

<sup>1</sup> Only valid in connection with STÖBER cables.

# Technical Data

POSISwitch® AX 5000

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Power protection	
Number of protective connections	4
Max. output current	200 mA
Output voltage	min. 22 V at 200 mA
Connection	Screw-type terminal (max. 1.5 mm <sup>2</sup> )
Galvanic isolation to EnDat®	Yes

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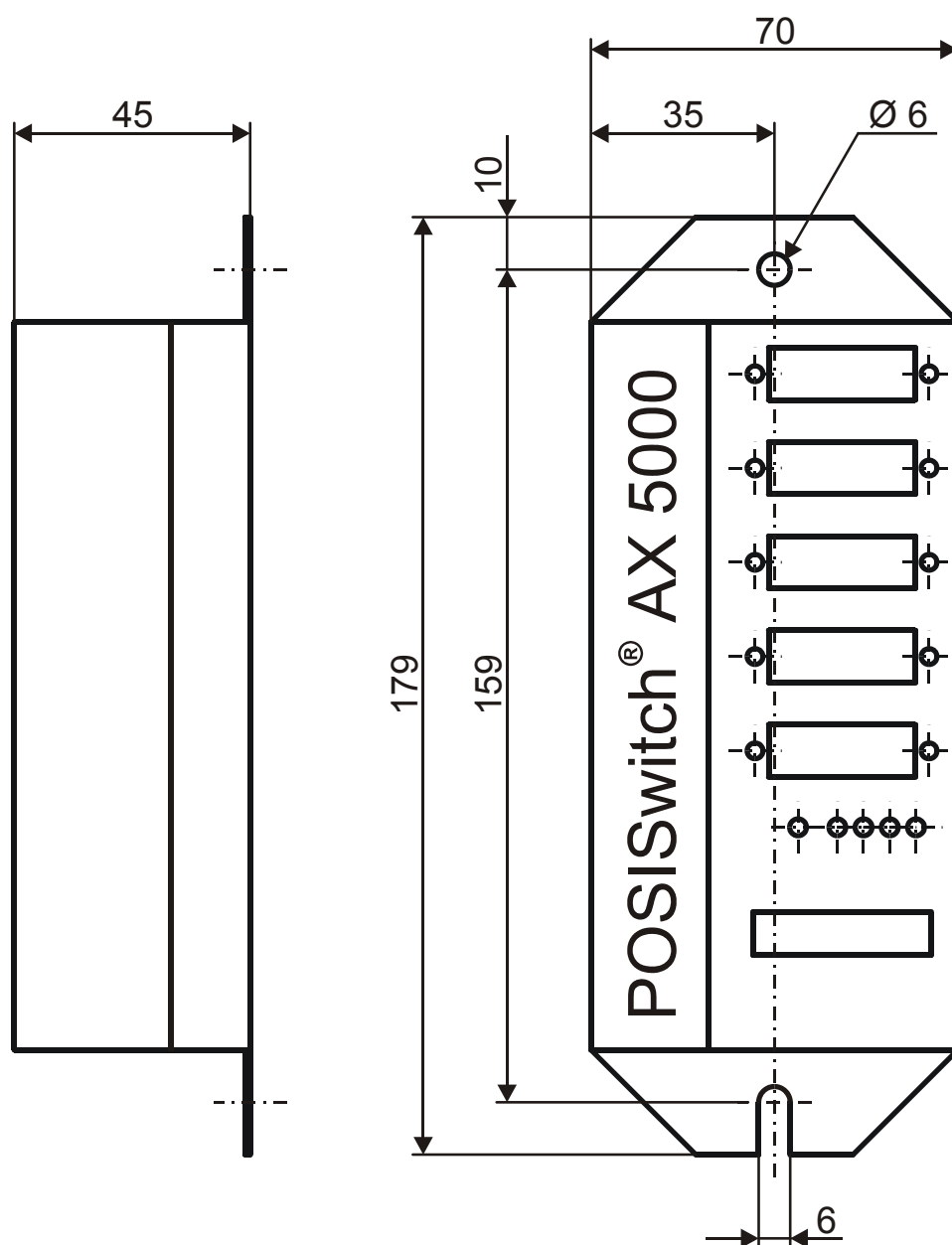
# Technical Data

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## 2.2 Mechanical

Specifications in mm



# Mechanical Installation

POSISwitch® AX 5000

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## 3 Mechanical Installation

This chapter gives you complete information on the subject of mechanical installation. Only specialized personnel qualified for this task may install, commission and control the device.

### 3.1 Installation Location

- Operate only in closed switching cabinet.
- Avoid installation above heat-generating devices.
- Ensure sufficient air circulation in the switching cabinet.  
(The installation site of POSISwitch® AX 5000 may not hinder the air circulation of the inverter.)
- The installation site must be free of dust, corrosive fumes and all liquids (in accordance with soil degree 2 as per EN 50178).
- Avoid humidity.
- Avoid condensation (e.g., due to anti-condensation heaters).
- To satisfy EMC requirements, use mounting plates with conductive surfaces (e.g., unpainted).

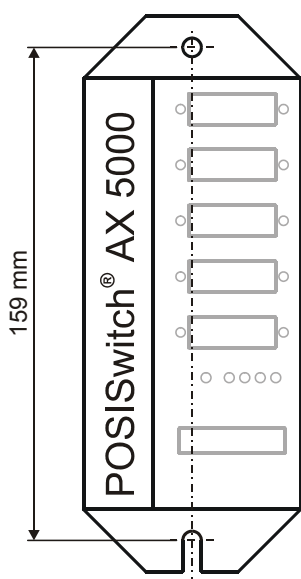
# Mechanical Installation

POSISwitch® AX 5000

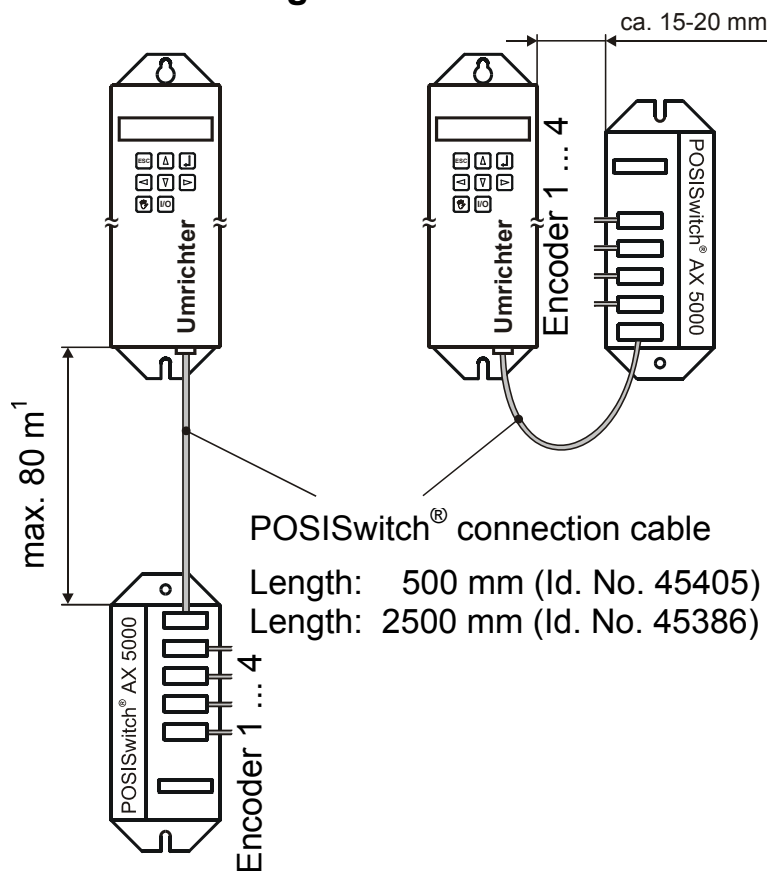
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## 3.2 Mounting

Drilling jig



Possible arrangement



<sup>1</sup> Valid only in connection with STÖBER cables.

## 4 Electrical Installation

This chapter gives you complete information on the subject of electrical installation.

Only specialized personnel qualified for this task may install, commission and control the device.

### 4.1 EMV

This chapter gives you general information on EMC-suitable installation. These are only recommendations. Depending on the application, the ambient conditions and the legal requirements, measures in addition to the following recommendations may be necessary.

- Mount device on conductive surface (unpainted).
- Motor cables must be installed in separate space from the encoder cables.
- Use only shielded cables for motor and encoder lines (corresponding cables can be ordered from STÖBER ANTRIEBSTECHNIK.).
- Apply shield of the motor cable on both sides.
- The circuit breakers may not interrupt the shield lines.
- Output derating must be used for motor lines > 50 m.
- When an additional transmission plug connector is installed in the motor cable, the shield may not be interrupted and the plug connection may not be opened when the motor is electrified.
- When the braking line is installed in the motor cable, the braking line must be shielded separately.

## 4.2 Connection

### 4.2.1 POSISwitch® AX 5000 to

#### MDS 5000/SDS 5000

POSISwitch® AX 5000 is controlled by POSIDRIVE® MDS 5000 or by POSIDYN® SDS 5000. A connection via socket X4 on the inverter to plug X500 on the AX 5000 enables the switching of the axes. Completely prefabricated cables are available in the lengths 500 mm (ID no. 45405) and 2500 mm (ID no. 45386). Cf. chap. 8. POSISwitch® AX 5000 is usually installed in the immediate vicinity of the inverter (see chap. 3.1 and 3.2). However, if this is not possible or desirable, a cable of up to 80 m<sup>1</sup> in length can be used.

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<sup>1</sup> Only valid in connection with STÖBER cables.



### 4.2.2 POSISwitch® AX 5000 to Encoder

The encoders of the individual servo motors are connected to POSISwitch® AX 5000 with the STÖBER encoder cable. The encoder of the first motor is connected with the socket Enc. 1. The encoder of the second motor is connected with the socket Enc. 2 and so on.

**The length of the encoder cable may not exceed 20 m<sup>1</sup>.**

### 4.2.3 Temp. Sensors and Braking Contacts

Activation of a halting brake and the evaluation of the temperature sensors on the motors is handled with *braking module for 24 V brake* (BRM 5000 for MDS 5000, BRS 5000 for SDS 5000). The brakes or temperature sensors (positor lines) allocated to the motors are activated and deactivated via auxiliary contacts of the applicable power relays/contactors. Chapter 7 contains examples of correct wiring.

### 4.2.4 Power and Relays / Contactors

POSISwitch® AX 5000 is powered with 24 V via the screw-type terminal strip X501 (terminals 1 and 2). Power consumption is a maximum of 1 A. The power relays/contactors are controlled via the AX 5000 on terminals X501.6 to X501.9. The contactors are

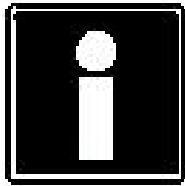
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<sup>1</sup> Only valid in connection with STÖBER cables.

powered via terminals X501.4 and X501.5. Chapter 7 contains examples of correct wiring.

### 4.2.5 Motors

The motors are activated and deactivated via power relays / contactors. POSiSwitch® AX 5000 controls and checks the power relays/contactors. Chapter 7 contains examples of correct wiring. Please adhere to the EMC recommendations.



#### Information

Use to switch the motor temperature sensor relay contacts for low currents/voltages (gold contacts).

# Connection Allocation

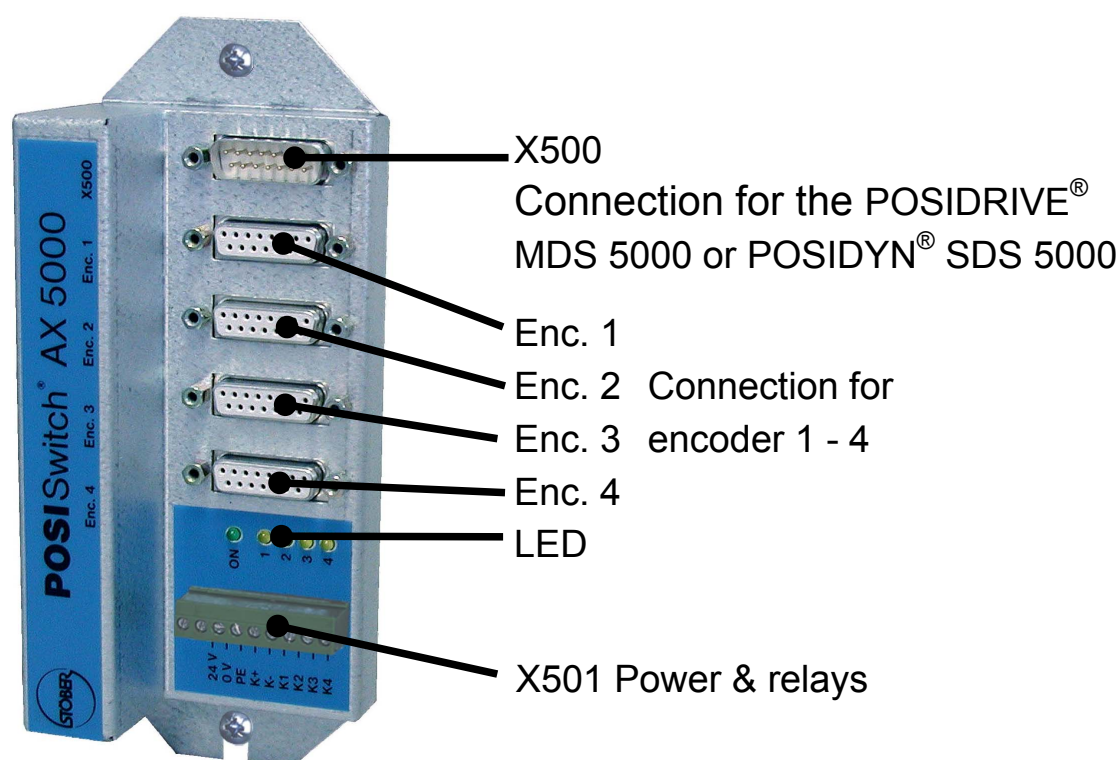
POSISwitch® AX 5000

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## 5 Connection Allocation

This section explains the position, designation and allocation of the terminals.

### 5.1 Terminal Overview



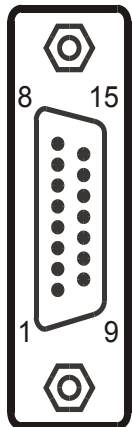
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## 5.2 Terminal Allocation

This section presents and describes all interfaces.

### X500 – Connection for MDS 5000 or SDS 5000

Please note that pin 4 is jumpered internally with pin 12.



Pin <sup>1</sup>	Designation	Function
1	NC	Not connected
2	GND	Reference for power supply
3	NC	Not connected
4	VCC	Power supply 5 V <sub>DC</sub>
5	DATA	Differential input DATA
6	NC	Not connected
7	ERROR	Differential output ERROR
8	CLK	Differential input CLOCK
9	NC	Not connected
10	NC	Not connected
11	NC	Not connected
12	Sense	Sense connection
13	/DATA	Inverted, diff. input DATA
14	/ERROR	Inverted, diff. output ERROR
15	/CLK	Inverted, diff. input CLOCK

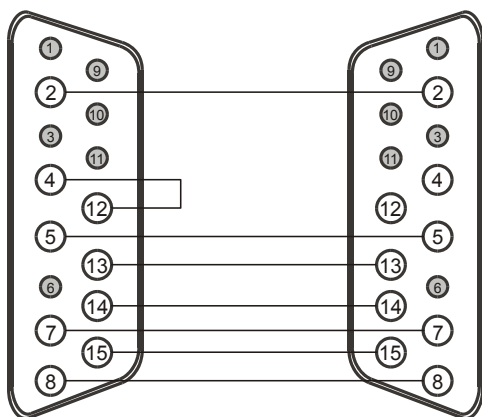
<sup>1</sup> View of terminal / sub D

# Connection Allocation

POSISwitch® AX 5000

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## POSISwitch® cable



Umrichter  
X4

POSISwitch®  
X500

## X501 – voltage supply & relays

Pin <sup>1</sup>	Designation	Function	Data
	+24V <sub>DC</sub>	Voltage supply	—
	0V	Reference for 24 V	—
	PE	Protective conductor	—
	K+	Power for the relays	+ Potential for powering power relays/contactors U <sub>min</sub> = 5 V U <sub>max</sub> = 30 V

<sup>1</sup> View of terminal / sub D

# Connection Allocation

POSISwitch® AX 5000

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Pin <sup>1</sup>	Designation	Function	Data
	K-	Reference potential for Pin 4	—
	K1 OUT	Relay output for 1 <sup>st</sup> axis	I <sub>max</sub> (24 V) = 0.2 A, Internal safety circuit with free-wheeling diode for relay coil.
	K2 OUT	Relay output for 2 <sup>nd</sup> axis	
	K3 OUT	Relay output for 3 <sup>rd</sup> axis	
	K4 OUT	Relay output for 4 <sup>th</sup> axis	

## LED

Designation	Meaning
ON	When the LED is on, the axis switch is supplied with voltage.
1	When the LED is on, axis 1 is selected.*
2	When the LED is on, axis 2 is selected.*
3	When the LED is on, axis 3 is selected.*
4	When the LED is on, axis 4 is selected.*

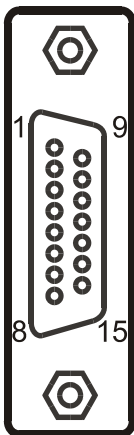
\* When the LED is on, communication is taking place with the encoder of the axis. The relay output (X501.K1 OUT to X501.K4 OUT) becomes active when the axis is activated by axis management (device control).

# Connection Allocation

POSISwitch® AX 5000

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## Enc. 1; Enc. 2; Enc 3; Enc. 4 – Connection for encoders 1 - 4

Pin <sup>1</sup>	Designation	Function	
	1	NC	Not connected
	2	GND	Reference
	3	NC	Not connected
	4	VCC	Power supply 5 V <sub>DC</sub> Is jumpered internally with pin 12
	5	DATA	Differential input DATA
	6	NC	Not connected
	7	NC	Not connected
	8	CLK	Differential output CLOCK
	9	NC	Not connected
	10	NC	Not connected
	11	NC	Not connected
	12	Sense	Sense connection Is jumpered internally with pin 4
	13	/DATA	Inverted, diff. input DATA
	14	NC	Not connected
	15	/CLK	Inverted, diff. output CLOCK

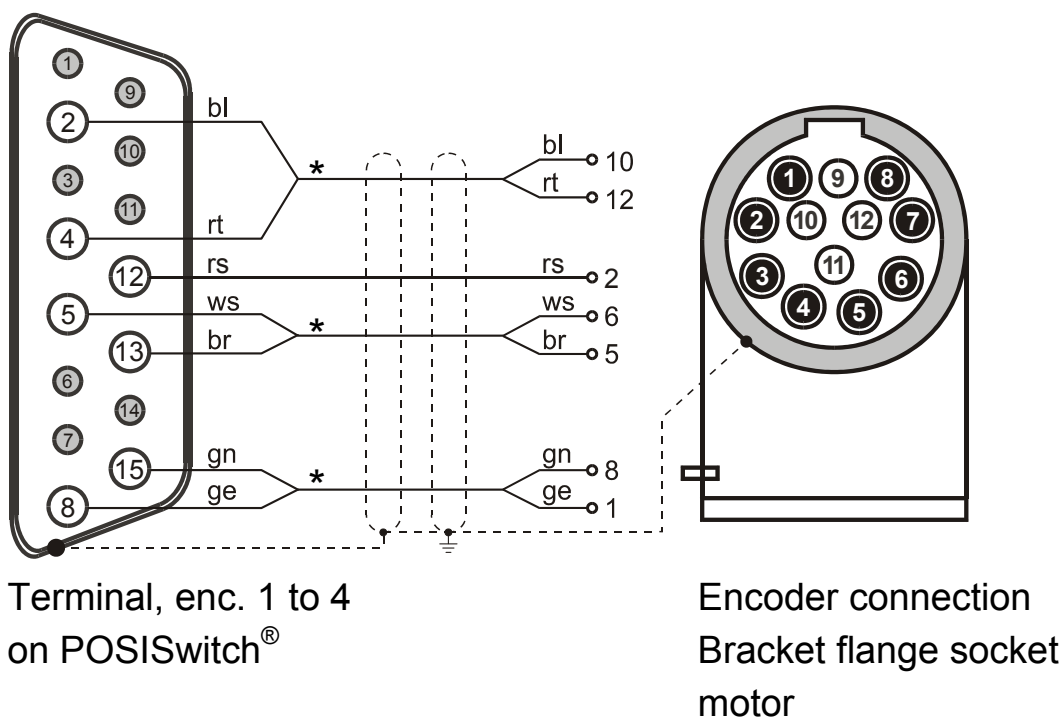
<sup>1</sup> View of terminal / sub D

# Connection Allocation

POSISwitch® AX 5000

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## Connection of the encoder to POSI Switch® AX 5000



Signal	Clock+	Sense	DATA-	DATA+	Clock-	UB+	DGND
Enc. 1-4	8	12	13	5	15	4	2
Motor <sup>1</sup>	1	2	5	6	8	12	10
Cable <sup>2</sup>	Yellow	pink	brown	white	green	red	blue

1) PIN number of 12-pin encoder plug for STÖBER ED/EK motor

2) Color when STÖBER encoder cable is used

\* Cables twisted in pairs.



# Configuration

POSISwitch® AX 5000

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## 6 Configuration

This chapter describes the configuration of POSISwitch® AX 5000. The user decides whether POSISwitch® will be used in the configuration assistants during the step “inverter selection”. An appropriate selection is offered here (see figure).

**Device configuration - Inverter selection**

Step 6 of 6  
Inverter selection

Be sure to precisely specify the hardware to be configured. Correct definition of the target inverter is important for:

- Correct parameter representation
- and establishing an online connection to the inverter.

Device family: MDS 5000

Device type: MDS 5008 (dreiphasig, 2.1/1.5 A, 0.75 kW)

Firmware: Starting at 5.2

Option module 1 (upper): CAN 5000

Option module 2 (lower): XEA 5001

POSISwitch® AX 5000: none

Brake resistor: 40376: FZM 250W 300R ( 300 Ohm, 250 W/att )

You can now conclude device configuration. Afterwards you can parameterize your application and then establish an online connection to the inverter.

< Previous   Next >   Finish   Cancel

For further information on the functionality (e.g., encoder simulation and time behavior), see application manual, chap. 6 (ID 441691). When POSISwitch® AX 5000 configured, the device is adjusted to the application via the following parameters.

# Configuration

POSISwitch® AX 5000

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Par.	Description	Fieldbus address	
F90 Global r=2, w=3	<p><b>Release time axis-switch:</b> Specifies the release time of the contactor used for the axis switchover. This minimum time is waited before the inverter lets the next contactor be applied.</p> <p><i>Value range in ms: 0 ... <u>20</u> ... 32767</i></p> <p>Fieldbus: 1LSB=1ms; Type: I16; USS-Adr: 06 16 80 00 hex</p>	2A5Ah	0h
F91 Global r=2, w=3	<p><b>Set time axis-switch:</b> Specifies the set time of the contactor used for the axis switchover. This time is at least waited before the inverter lets the axis be electrified.</p> <p><i>Value range in ms: 0 ... <u>20</u> ... 32767</i></p> <p>Fieldbus: 1LSB=1ms; Type: I16; USS-Adr: 06 16 C0 00 hex</p>	2A5Bh	0h
H08 Axis, OFF r=2, w=2	<p><b>POSISwitch® encoder selector:</b></p> <p>Available as an option, the POSISwitch® control module permits the connection of several motors to one inverter. In <i>H08</i> it can be set separately for each of the four (software) axes which connection on the</p>	2E08h	0h

# Configuration

POSIswitch® AX 5000

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Par.	Description	Fieldbus address	
	<p>POSIswitch® (i.e., which motor) is allocated to the particular axis configuration. This routine permits two or more applications to be run together on separate (software) axes with a single motor.</p> <p><b>NOTE</b> Following a change in parameter <i>H08</i>, correct evaluation of the electronic nameplate is not ensured until after a device new start.</p> <p><u>0: Enc1;</u> 1: Enc2; 2: Enc3; 3: Enc4;</p> <p>Fieldbus: 1LSB=1; Type: U8; USS-Adr: 08 02 00 00 hex</p> <p>👁 Only visible when a POSIswitch® was detected on X4.</p>		

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# Configuration

POSISwitch® AX 5000

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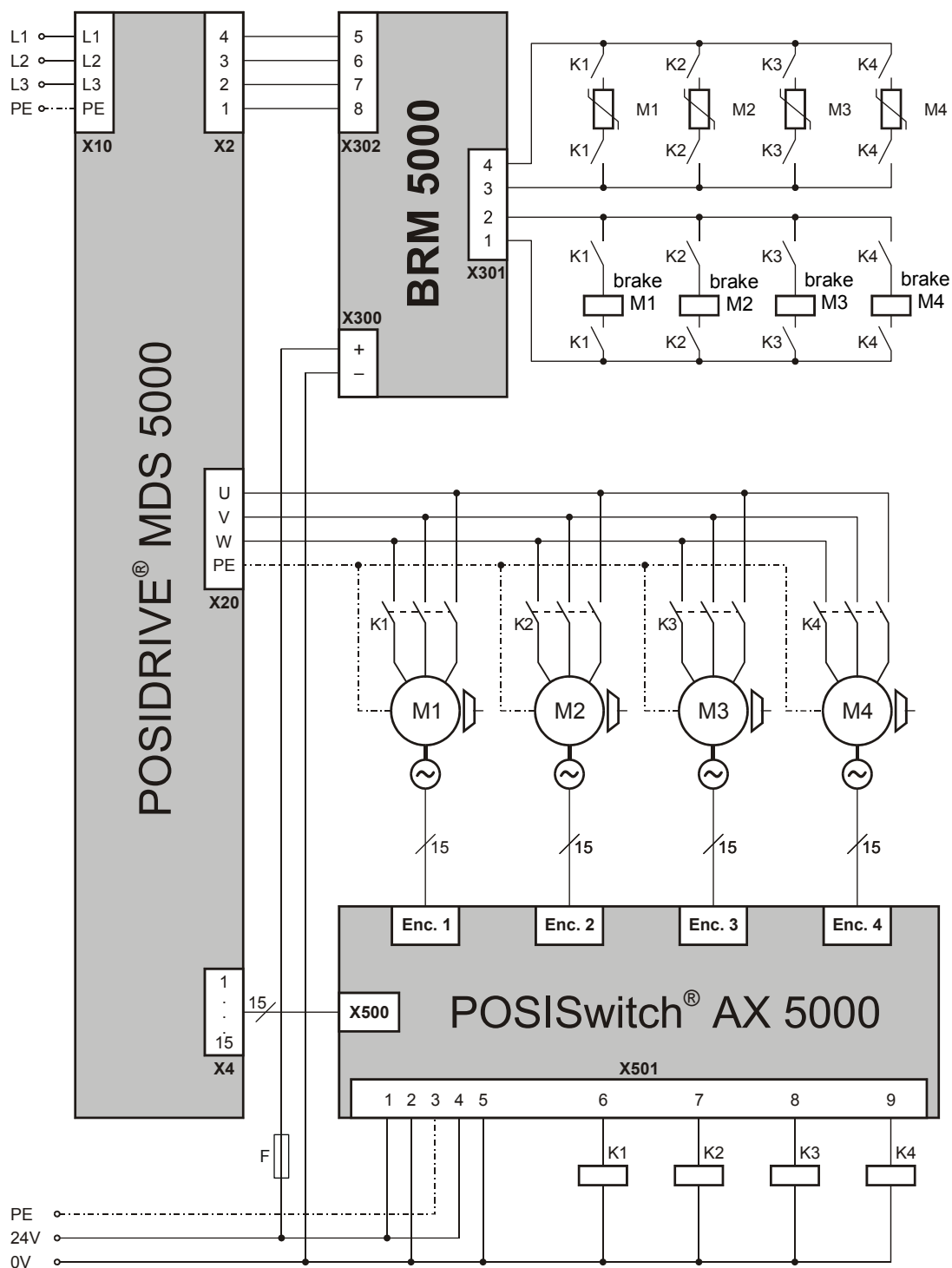
Par.	Description	Fieldbus address	
H18 Global, OFF read (2)	<p><b>POSISwitch® port-status:</b> Indicates as a binary word the POSISwitch® ports to which encoders are connected. This is determined by the inverter during startup.</p> <p>Fieldbus: 1LSB=1; Type: U8; USS-Adr: 08 04 80 00 hex</p> <p>👁 Only visible when a POSISwitch® was detected on X4.</p>	2E12h	0h
U12 Global r=3, w=3	<p><b>Level motor connection:</b> When the axis switch via POSISwitch® is utilized, the inverter can test during switching whether the contactor of the motor to be switched off has actually broken contact (opened). In addition, under certain circumstances, it can be determined that no motor is connected.</p> <p><i>0: inactive;</i> <i><u>3: Fault;</u></i></p> <p>Fieldbus: 1LSB=1; Type: U8; USS-Adr: 15 03 00 00 hex</p>	480Ch	0h

# Principal Circuit Diagrams

POSISwitch® AX 5000

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## 7 Principal Circuit Diagrams

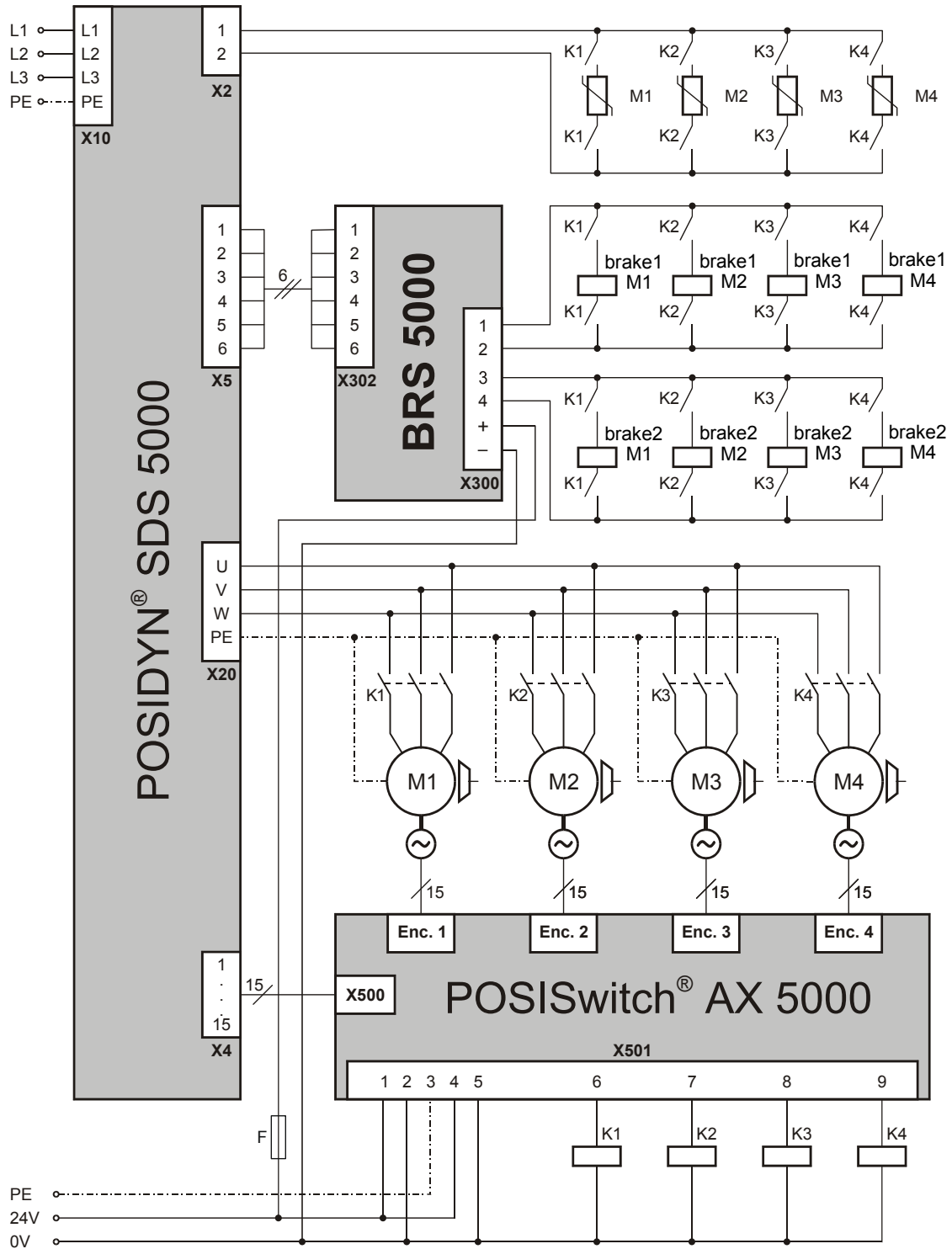


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# Principal Circuit Diagrams

POSISwitch® AX 5000

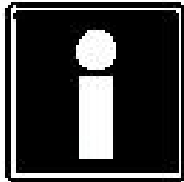
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# Principal Circuit Diagrams

POSISwitch® AX 5000

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## Information

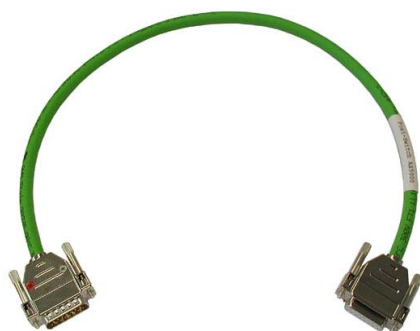
The lines to the brake and temperature sensor must be opened with two poles when an axis switches so that no interference is created (e.g., with long lines).

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## 8 Accessories

### POSISwitch® connection cable

ID no.	Description
45405	Connection between inverter and POSISwitch® AX 5000, Length: 0.5 m
45386	Connection between inverter and POSISwitch® AX 5000, Length: 2.5 m







## Address registers

Always up to date on the internet: [www.stoeber.de](http://www.stoeber.de) → contact

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